

The Bronze Age on the Periphery. The hoard from Tichá and new finds from the Upper Malše Basin in Southern Bohemia

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ABSTRACT

The paper provides an overview of the first Bronze Age finds discovered in recent years in the peripheral area near the upper course of the River Malše, at the border between today's regions of southern Bohemia and Upper Austria. Several isolated finds of metal items and two hoards from the southern Bohemian part of the upper Malše basin indicate the use of this area, seemingly uninhabited in the Bronze Age, as a possible communication corridor connecting the two above-mentioned regions. For the first time, a hoard of bronze artefacts from the Late Bronze Age from Tichá is published in this paper, which significantly contributes to the knowledge and possible interpretation of prehistoric human activities in this region.

KEY WORDS

Southern Bohemia; Upper Malše Basin; Bronze Age; hoard; periphery; XRF analyses.

INTRODUCTION

With the passing of Professor Bouzek, we have lost not only a leading researcher on the European Bronze and Iron Ages, but also a leading expert on the Bronze Age in southern Bohemia. J. Bouzek devoted his professional life to this topic from the very beginning of his career (e.g., BOUZEK 1958; 1963; 1965) and remained faithful to it for its rest of it (e.g., BOUZEK 1985; 2001; 2004a; 2004b; 2011). Therefore, in his memory, we would like to present this small contribution, focused on the topographically peripheral area of southern Bohemia, which, however, with its location on the country border today undoubtedly played a communication role between the regions of southern Bohemia and Upper Austria, and at the same time, provided interesting testimonies of human activities in recent years.

TERRITORIAL DEFINITION AND NATURAL CHARACTERISTICS OF THE AREA OF INTEREST

The studied area can be described as the upper Malše basin, i.e., the area in the wider surroundings of the upper reaches of the River Malše (**Fig. 1**; for Malše in general, see CHÁBERA *et al.* 1985, 169–170). The above term 'upper Malše basin' is not precisely defined in the available literary sources – for the purposes of this paper, we understand it as the territory along the flow of the Malše from its source to the wider area around the present-day town of Kaplice. The southern boundary of the area of interest is today's state border, formed by the first kilometres of the River Malše, here flowing roughly in the direction from east to west. At today's village of Dolní Dvořiště, the Malše turns its flow to the north, and there it forms the

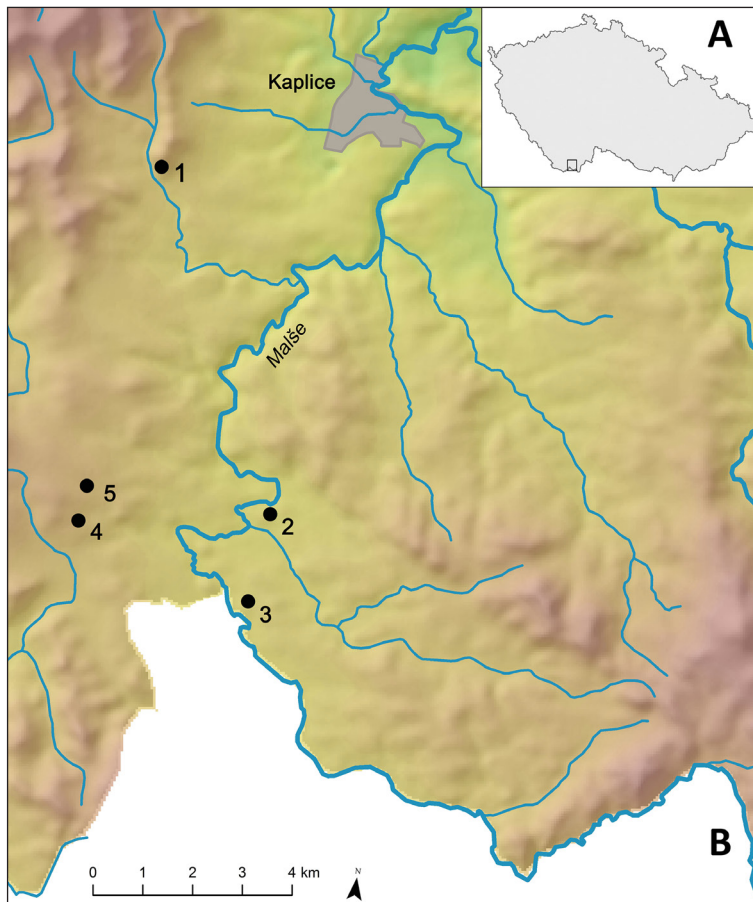


Fig. 1: The upper Malše basin microregion on the map of Bohemia (A) and in detail with the indication of Bronze Age finds (B). The site numbers correspond to the list in the text. Prepared by J. John.

axis of the entire microregion. The northern boundary of the area of interest is formed by the confluence of the Malše and Černá rivers, with the microregion of the central Malše basin following up in the vicinity of today's Velešín. The western border of the upper Malše basin is formed by the easternmost foothills of the Bohemian Forest (known as the Poluška nature park); the foothills of the Gratzen Mountains delineate the eastern border of the microregion.

Today, the area of the upper Malše basin is largely identical to the natural monument of the same name. Geomorphologically, it includes the so-called Kaplická brázda – a protracted lowland with an average altitude of 568 m.a.s.l., which separates the Bohemian Forest from the Gratzen Mountains (DEMEK *et al.* 1987). It is a natural communication corridor, connecting the České Budějovice basin in the north with the Feldaist valley and the Freistadt basin in Upper Austria, which has rightly been considered an important thoroughfare since prehistoric times (e.g., GRUBER 2021a, 23–24).

Until recently, this area was considered completely uninhabited in the Bronze Age period (cf., e.g., ZAVŘEL 2006). In recent years, however, several interesting finds have been discovered in this region, indicating certain human activities in this seemingly empty landscape, at least for some segments of the Bronze Age.

LIST OF BRONZE AGE SITES IN THE UPPER MALŠE BASIN

In the following list, all sites, regardless of their interpretation and dating, are listed alphabetically according to the cadastral area (**Fig. 1**). All belong to the district of Český Krumlov. The list contains, first, the type designation of the site ('Type'), its location ('Loc.'), including approximate coordinates in the WGS84 system, basic finding circumstances ('Circ. '), dating ('Dat. '), and a reference to basic literature ('Bibl.').

1. OMLENICE

Type: An isolated find of a bronze spearhead. Loc.: Steep SW slope of the hill, SW of the village (alt. 750 m), approx. 200 m E of the Bočkov hamlet. 48.7231361N, 14.4340117E. Circ.: Accidental discovery by Lukáš Horák around 2012. Dat.: Late Bronze Age. Bibl.: CHVOJKA *et al.* 2017, 110.

2. RYCHNOV NAD MALŠÍ

Type: A hoard of ingots (ribs). Loc.: A hill 600 m southwest of the church in the village, above the valley of the River Malše. 48.6633214N, 14.4780428E. Circ.: A set of 26 copper ribs was found by Martin Novotný in 2010. Dat.: Turn of the Early and Middle Bronze Age (Br A2/B1). Bibl.: CHVOJKA - JIRÁŇ - METLIČKA *et al.* 2017, 55-56.

3. TICHÁ

The hoard is published in detail in the following chapter.

4. TROJANY

Type: An isolated find of a bronze axe. Loc.: SW edge of the forest, approx. 750 m NNW of the Rybník railway station. 48.6558272N, 14.4289047E. Circ.: Discovery by Josef Zima in 2017, at the depth of approx. 20 cm. Dat.: Early Bronze Age (Br A2). Bibl.: CHVOJKA *et al.* 2021.

5. TROJANY

Type: An isolated find of a bronze axe. Loc.: Forest on the western outskirts of the village, at 702 m. 48.6632258N, 14.4283683E. Circ.: Discovery by Lukáš Horák before 2016. Dat.: Late Bronze Age (Br D). Bibl.: CHVOJKA *et al.* 2017, 119.

A HOARD OF BRONZE ARTEFACTS FROM TICHÁ

The only Bronze Age find in the upper Malše basin, which has not yet been published, is the hoard of a total of 4 bronze objects, accidentally discovered by Luděk Schmidtmayer at the beginning of May 2017. Immediately after the discovery, the finder informed one of the authors of this study and handed the hoard over to the South Bohemian Museum. Due to the long-term illness of the finder, the actual field survey on the site was carried out as late as on 30 July 2021. Documentation and localization of the site were performed, but no other artefacts could be discovered.

The discovery was made on the western slope of a nameless hill (at 629 m), 1750 m south-east of Svatý Kámen, 230 m east of the River Malše, which forms the border with Austria in this area. On the basic map of the Czech republic (ZM) 32-43-03, its position is specified by the coordinates 075:004; GPS: 48°38.700'N, 014°28.505'E.



Fig. 2: Tichá. Location of the hoard (marked with an arrow). Photo by L. Schmidtmayer.

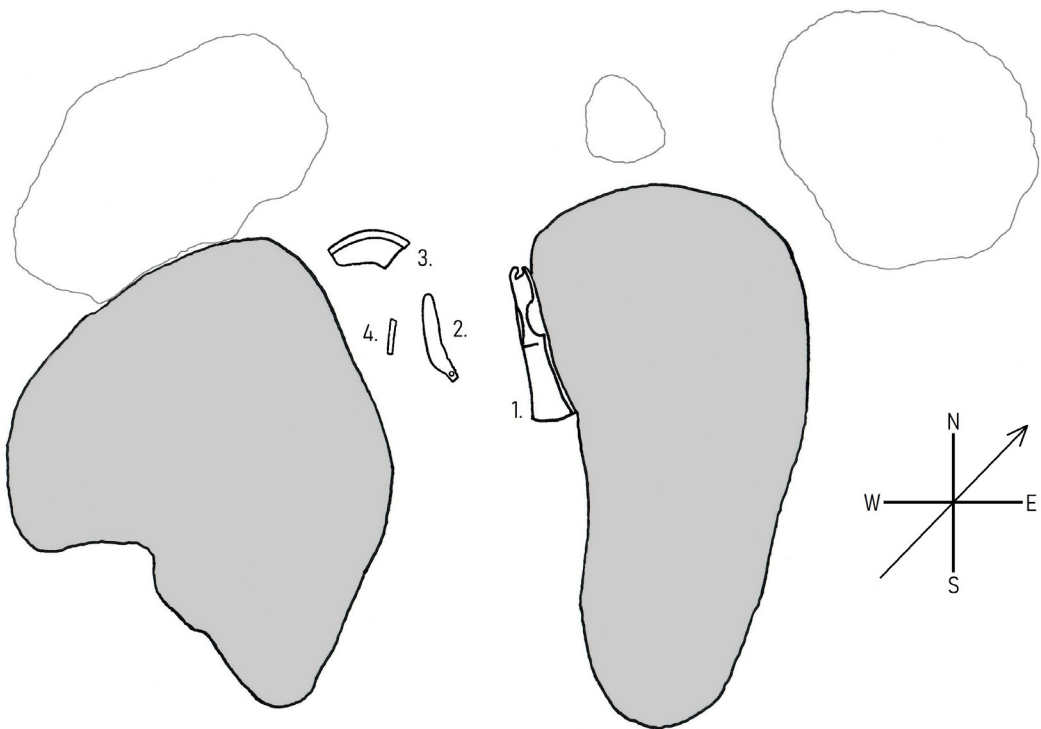


Fig. 3: Tichá. Field sketch of the location of individual artefacts from the hoard. Drawing by L. Schmidtmayer.

According to the information from the finder, the artefacts were found at a depth of about 30 cm in the clay between two large boulders, naturally protruding here in the elongated ridge (**Fig. 2**). It is interesting that there are no similar boulders elsewhere in the area. The artefacts were not placed directly on top of each other, but at different depths, separated by soil (**Fig. 3**): the sickle (No. 3) was located at the highest point, the knife (No. 2) was south of it with the fragment of a pin (No. 4) nearby. The axe (No. 1) was placed near the large eastern boulder. The above-described distribution of bronze items indicates their redeposition or dislocation – it is likely that these items were originally deposited between the two boulders, but over time they moved, probably due to natural processes. In addition, during the survey in summer 2021, the group of boulders was found significantly disrupted by timber harvesting.

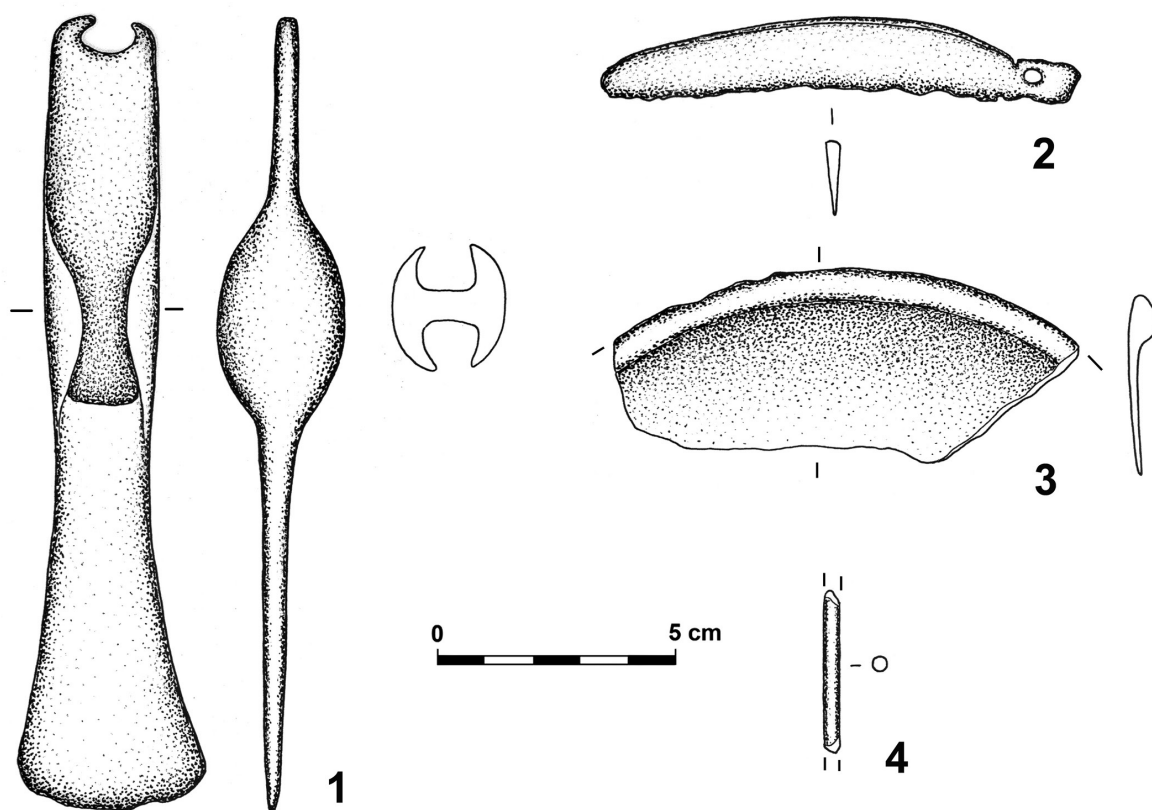


Fig. 4: Tichá. Finds from the hoard. Drawing by T. Kolegar.

DESCRIPTION OF THE ARTEFACTS

1. Axe with central lobes. The body is narrow, the blade is widened, the back is arcuately indented with the ends pulled out into the form of opposite tongue protrusions (one is broken off). Between the lobes, there are traces of blows, probably by a hammer. Length 170 mm, blade width 39 mm, lobe thickness 26 mm, weight 230.7 g. Dark grey-green, conserved patina. The item is slightly corroded in places, the blade and the back are damaged. **Fig. 4:1; Pl. 1/1.**

2. Knife with an arched back and a short tongue-shaped handle with one hole for a rivet, which was apparently offset from the blade (due to damage in this place, however, this offset

is uncertain). Length 102 mm, blade width 16 mm, back thickness 2 mm, weight 15.8 g. The surface of a brown-black colour is heavily corroded, without patina. The edge is broken off, there is a crack in the connection point of the handle and the blade. **Fig. 4:2; Pl. 1/2.**

3. A fragment of a sickle blade with a pronounced outer, non-decorated rib, lining the back. The tip and handle of the sickle are broken off. Length 99 mm, width max. 41 mm, rib thickness 5 mm, weight 46.1 g. Dark green even patina. The item is slightly warped at the point of break (towards the handle). **Fig. 4:3; Pl. 1/3.**

4. A fragment of a needle of round cross-section, probably from a dress pin of an indeterminate type. The tip of the needle is broken off. Length 34 mm, needle diameter 4 mm, weight 2.1 g. Dark brown-green patina, strongly corroded. **Fig. 4:4; Pl. 1/4.**

ANALYSIS OF ELEMENTAL COMPOSITION OF ARTEFACTS

All four artefacts from the hoard were examined using the X-ray fluorescence (XRF) method in the laboratories of the University of South Bohemia. The measurement was performed using the Niton XL2 GOLDD hand-held spectrometer with a large-area Silicone Drift Detector (SDD) and a low-power X-ray lamp (45 kV/2 W), by which the samples of metal dust obtained with a steel drill were exposed to radiation. This procedure was chosen taking into account the fact that the measurement of the corroded surface of bronze items usually yields very distorted results, when, in particular, the amount of tin is strongly overestimated. On the other hand, the procedure used by us may lead to the opposite effect, i.e., an underestimation of the amount of tin in the alloy (see MALÝ – DAŇA – KAPUSTA 2019).

Based on the analysis, the material of all the artefacts can be described as tin bronze with a low admixture of arsenic, nickel and often also lead (**Tab. 1**). Most of the tin is contained in the knife alloy, on the contrary, the lowest amount of this element was recorded in the case of the sickle. This confirms the previously observed trend of the production of sickles from an alloy less alloyed with tin compared to other artefacts (see FRÁNA *et al.* 1997, 63–73).

Tab. 1: Results of XRF analysis of items from the Tichá hoard. All values are given as a percentage of weight/weight ratio.

	Cu	Sn	Pb	As	Ni	Fe
1 - axe	93.05	5.67	0.14	0.19	0.30	0.18
2 - sickle	95.46	3.69	-	0.16	0.33	0.02
3 - knife	88.85	8.30	0.22	0.45	0.49	1.06
4 - rod	94.18	3.95	0.53	0.22	0.34	0.25

TYPOLOGICAL-CHRONOLOGICAL ANALYSIS

Assuming that the assemblage from Tichá is complete, it would be one of the smallest hoards, containing only four artefacts – most of the south Bohemian Late Bronze Age hoards are several times larger (e.g., KYTLICOVÁ 2007, tab. 21–22; CHVOJKA 2009, 154; CHVOJKA – JIRÁŇ – METLIČKA *et al.* 2017, tab. 109–131, etc.). Each of these four artefacts is a different type of product and it is noticeable that there are no cake-shaped ingots or their fragments as is typical for this period. Two of the artefacts are in fragments, the other two are complete – therefore, the hoard

cannot be described as a typical 'fragment hoard' as is the norm for the Late Bronze Age (cf. KYTLICOVÁ 2007, 174-178; CHVOJKA - JIRÁŇ - METLIČKA *et al.* 2017, 164-167).

As far as typology is concerned, neither the fragment of the sickle blade (**Fig. 4:3**) nor the fragment of the shaft of the dress pin (**Fig. 4:4**) can be classified more specifically. In contrast, the axe is clearly of the type with central lobes (**Fig. 4:1**), which is one of the typical tools of the Late Bronze Age (e.g., ŘÍHOVSKÝ 1992, 147-177; KYTLICOVÁ 2007, 122-132). In southern Bohemia, we can find dozens of analogies, e.g., directly in the Český Krumlov region in a specimen from Křenov (CHVOJKA 2009, tab. 88:1).

A simple non-decorated knife with an apparently indented tongue-shaped handle (**Fig. 4:2**) is typologically the closest to the Nebílovy type of knives, occurring at the beginning of the Late Bronze Age (Br D - Ha A1) mainly in western Bohemia (JIRÁŇ 2002, 24-25). In southern Bohemia, this type of knife has not yet been documented, but there are several dozen of the Riegsee-type knives known there, which are almost identical to the Nebílovy type (e.g., CHVOJKA 2009, 101; CHVOJKA *et al.* 2017, 129).

Thus, the Tichá hoard contained common local products, none of which could be considered to be imports. Chronologically, they belong to the Late Bronze Age, based on the dating of the knife most probably to its earlier stages, i.e., Br D-Ha A1.

DISCUSSION: THE UPPER MALŠE BASIN AS A COMMUNICATION CORRIDOR OR SACRAL LANDSCAPE OF THE BRONZE AGE?

The hoard from Tichá, discovered on the very border of southern Bohemia and Upper Austria, has brought an important stimulus to the reflection on the possible use of the region of the upper Malše basin in the Bronze Age. The reason for depositing a set of four items, which are standard products of the Late Bronze Age, is uncertain, but clearly related to the presence of people in this apparently not constantly inhabited area. The above-mentioned isolated finds of axes from Trojany or a spearhead from Omlenice may indicate accidental losses during prospecting, fighting or hunting expeditions (cf. ZAVŘEL - CHVOJKA - JOHN 2016), in the case of hoards, however, the deposition was deliberate either in order to temporarily store the property or as a votive deposition of artefacts (e.g., HANSEN 1994; BRADLEY 2013; NEUMANN 2014; ŠTEFFL 2014, 86-89, 97-114; BOUZEK 2015; VACHTA 2016, 171-186).

In the hoard from Tichá as well as at the nearby (about 2 km north) hoard of ribs from Rychnov nad Malší, there is an obvious connection to the River Malše. It seems that both of the hoards may be related to the so far assumed pathway along this river (cf. CHVOJKA 2015). The River Vltava is rightly considered to be the dominant link between southern Bohemia and the Upper Austrian Danube basin (BOUZEK 1988-1989, 223), but the latest findings indicate some communication significance and routes along the River Malše, too, at least in some pre-historic periods. We can especially count the Early and the beginning of the Middle Bronze Age among them, when there is a significant enclave of settlement both in the middle Malše basin, in the vicinity of Velešín (CHVOJKA 2008, 174-175; CHVOJKA - HLÁSEK - ŠÁLKOVÁ 2021, 123), and in the region of the lower Malše basin, around České Budějovice (CHVOJKA - ZAVŘEL 2010, 11-12, fig. 4). However, the hoard from Tichá indicates the use of this link even during the Late Bronze Age, although the number of known finds from this era from the entire Malše region is very small compared to the Early Bronze Age.

There are even fewer known Bronze Age finds from the adjacent area of Upper Austrian Mühlviertel. In the nearby territory of the Freistadt basin, only a few finds are documented from the Bronze Age (e.g., REITINGER 1968, 100); a more stable presence of settlement is then

demonstrated in the southern Gallneukirchen basin, where several burial mounds from the Middle to Late Bronze Age are known (GRUBER 2021b). In the context of the hoard from Tichá, published here, it is necessary to mention the isolated finding of a Late Bronze Age sickle from Leopoldschlag (REITINGER 1968, 237), i.e., from the village situated about 4 km from the location of the Tichá hoard. Unfortunately, the find from as early as 1839, lacks information on more detailed find circumstances as well as any precise localization.

The above mentioned metal artefact finds from the southern Bohemian and adjacent Upper Austrian regions of the upper Malše basin indicate at least an occasional use of the long-distance trail along the Feldaist and Malše rivers during the Bronze Age. Perhaps Alpine copper could have been transported along this route, as indicated by a recently discovered and published hoard from the Late Bronze Age from Staré Hodějovice, located about 600 m from today's Malše riverbed, which, thanks to isotopic analyses, provided evidence of the import of Alpine copper into southern Bohemia and its local processing in this era (KMOŠEK *et al.* 2020).

In addition to the communication importance of the upper Malše basin, there is also a reflection on the symbolic role of this area, which, although lacking the grandeur of the Alpine peaks or the conspicuousness of the Central Bohemian Highlands, we still have to take this possibility into account (BOUZEK 2002; CHROUSTOVSKÝ 2006; ŠTEFFL 2014, 104–105; VACHTA 2016). In such a context, the hoards from Tichá and Rychnov would then constitute possible votive deposits in the area at the border between the Bohemian Forest and the Grätzen Mountains, or between the Freistadt and České Budějovice basins, respectively. However, the interpretation of the reasons for depositing prehistoric hoards remains mostly speculative, and unfortunately, it is no different for both hoards from the upper Malše basin.

CONCLUSION

The constantly increasing number of new metal finds from the Bronze Age means not only a significant growth of the information base and the densification of finds in the then demonstrably populated regions, but also the rehabilitation of certain areas, still considered almost or completely free of traces of human activities. In southern Bohemia, this includes, for example, some mountain sections of the Bohemian Forest (CHVOJKA *et al.* 2020) or the herein studied area of the upper Malše basin, in which no finds from this era were known until 2010. It is clear that these new metal artefacts cannot provide a comprehensive picture of human activities in these peripheral areas, but they do offer some likely interpretative possibilities. For the upper Malše basin, we can assume, above all, its communication role, but we can also consider hunting or prospecting expeditions, while considerations about the possible symbolic role of this rugged landscape are also legitimate.

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Pl. 1/1: Tichá. Finds from the hoard. Photo by J. John.